

Background Press Information

What are the targets of opportunity for recycling?

Municipal Solid Waste (MSW) which goes to disposal at a waste to energy facility or a landfill is a target of opportunity for recycling. In 1998, the amount of solid waste disposed of totaled approximately 158 million tons. The top 12 categories of waste alone accounted for nearly 105 tons of waste disposed of.

- Food waste alone accounted for over 20 millions tons of waste generated in 1998, over 97% of which was not recycled.
- Plastics are spread out over many of these categories and, taken as a whole, account for 21 million tons discarded and a 5.4 percent recycling rate.
- Even with a high recycling rate, corrugated boxes constitute a larger portion of the residential

streams because of Internet/ catalogue sales, providing additional opportunities to expand residential programs to include this waste stream.

- Miscellaneous durables, mostly electronics such as computers, TV's, stereos, and microwaves, have a low recycling rate yet are a rich target full of metals and usable electronic circuits which offer opportunities for remanufacturing.

In total, these 12 waste categories represent over 65 percent of the municipal solid waste stream in 1998 that was not recycled. These waste categories represent targets of opportunity for recycling and are summarized below:

Targets of Opportunity

Top Twelve Categories of MSW in 1998	Millions of Tons Generated	Millions of Tons Disposed Of	Millions of Tons Recycled
Food Waste	22.13	21.55 (97.4%)	0.58 (2.65%)
Yard Trimmings	27.73	15.17 (54.7%)	12.56 (45.3%)
Miscellaneous Durables	13.37	12.55 (93.9%)	0.82 (6.1%)
Corrugated Boxes	29.76	8.84 (29.7%)	20.92 (70.3%)
Furniture and Furnishings	7.6	7.60 (100%)	N/A (<1%)
Wood Packaging	7.23	6.59 (91.2%)	0.64 (9.8%)
Other Commercial Printing	7.04	6.15 (93.6%)	0.89 (6.4%)
Newspapers	13.62	5.94 (43.6%)	7.68 (56.4%)
Clothing and Footwear	6.04	5.24 (86.8%)	0.80 (13.2%)
Paper Folding Cartons	5.55	5.16 (93%)	0.40 (7.0%)
Other Non-packaging Paper	4.41	4.41 (100%)	N/A (<1%)
Standard (A) Mail	5.20	4.22 (81.2%)	0.98 (18.8%)
Summary	149.68 Million Tons Generated In 1998	103.42 Million Tons Disposed Of In 1998	46.27 Million Tons Recycled In 1998

FOOD WASTE: THE BIGGEST TARGET

Food waste was 10 percent of municipal solid waste (MSW) generated in 1998 or 22 million tons. Only 2.6 percent or 580 thousand tons were recovered, leaving over 21 million tons of excess food going to disposal.

EPA and USDA have jointly endorsed an excess food hierarchy which calls for:

Feeding people first,
then animals,
then recycling (e.g., rendering grease),
then composting
before disposal.

(*WASTE NOT, WANT NOT: Feeding the Hungry and Reducing Solid Waste through Food Recovery*, EPA 530-R-99-040, www.epa.gov/epaoswer/non-hw/reduce/wastenot)

Sending excess food to food banks and other source reduction measures resulted in over 1.7 million tons of excess food not generated as MSW in 1996! (*National Source Reduction Characterization Report for Municipal Solid Waste in the United States*, November 1999, EPA 530-R-99-034, www.epa.gov/osw)

EPA estimates that local governments could have saved \$76.8 million in 1996 if 2.4 million tons of food scraps, yard trimmings, and certain paper grades from institutions such as universities and prisons had been composted on-site instead of taken to a landfill. This analysis assumed an average cost of composting institutional organic waste on-site of \$49 per ton. More than offsetting this cost was an average savings in collection and landfill costs of \$61 per ton and revenue from sale of compost of \$20 per input ton. This analysis shows average savings of \$32 per ton of organic

waste composted instead of taken to a landfill. (*Organic Materials Management Strategies*, July 1999, EPA 530-R-99-016, www.epa.gov/osw)

EPA estimates savings to local governments of over \$221 million if 24.6 million tons of food scraps and select paper grades from commercial establishments, including restaurants and supermarkets, were composted instead of sent to a landfill.

Average national cost for collection and disposal of mixed waste is \$102 per ton; \$64 per ton for collection and \$38 per ton for disposal. Of this cost, \$41 per ton is assumed to be fixed costs for mixed waste collection and \$61 per ton can be saved if the organic matter in the mixed waste is no longer disposed of. This \$61 per ton includes \$23 per ton in variable collection costs and \$38 per ton for disposal costs of mixed waste. In addition, the analysis assumes \$20 per ton of revenue will be generated from the sale of compost. This \$20 per ton, added to the \$61 per ton in savings yields a total of \$81 per ton of total savings and revenue. The average cost of collecting and composting organic waste from commercial establishments is \$72 per ton. This results in a net savings of \$9 per ton of commercial food scraps and certain paper grades composted instead of taken to a landfill. (*Organic Materials Management Strategies*, July 1999, EPA 530-R-99-016, www.epa.gov/osw)